

EXPLANATORY STATEMENT

Issued by the Australian Communications and Media Authority

Radiocommunications Advisory Guidelines (Managing Interference from Apparatus-licensed and Class-licensed Transmitters – 2 GHz Band) 2015

Radiocommunications Act 1992

Purpose

The Australian Communications and Media Authority (ACMA) has made the *Radiocommunications Advisory Guidelines (Managing Interference from Apparatus-licensed and Class-licensed Transmitters – 2 GHz Band) 2015* (the 2015 Advisory Guidelines).

The 2015 Advisory Guidelines revoke and replace the *Radiocommunications Advisory Guidelines (Managing Interference from Apparatus-licensed and Class-licensed Transmitters – 2 GHz Band) 2000* (the 2000 Advisory Guidelines) without making any significant changes to the regulatory arrangements created by the 2000 Advisory Guidelines.

The ACMA has made the 2015 Advisory Guidelines because the 2000 Advisory Guidelines were due to “sunset” (i.e. be automatically repealed) on 1 October 2015, in accordance with Part 6 of the *Legislative Instruments Act 2003* (the LIA). Following review, and consultation as described below, the ACMA formed the view that the 2000 Advisory Guidelines were operating effectively and efficiently, and continued to form a necessary and useful part of the legislative framework. Accordingly, the ACMA has remade the 2000 Advisory Guidelines by making the 2015 Advisory Guidelines, without any significant changes, so that their on-going effect is preserved.

Legislative Provisions

The 2015 Advisory Guidelines have been made by the ACMA in accordance with section 262 of the *Radiocommunications Act 1992* (the Act) and in accordance with subsection 33(3) of the Acts Interpretation Act 1901 (the AIA).

Section 262 of the Act provides that the ACMA may make written advisory guidelines about any aspect of radiocommunications or radio emissions.

Subsection 33(3) of the AIA relevantly provides that where an Act confers a power to make a legislative instrument, the power shall be construed as including a power exercisable in the like manner and subject to the like conditions (if any) to repeal, rescind, revoke, amend, or vary any such instrument.

Background

A spectrum licence permits a licensee, subject to specified conditions, to operate radiocommunications devices within a particular spectrum space, defined by a frequency band and a geographic area. Interference occurring between adjacent spectrum licences consists of in-band interference across the geographic boundaries, and out-of-band interference across the frequency boundaries. Interference can also occur between spectrum licensed services and services operating under apparatus and class licensing arrangements.

The Act provides a number of means by which the ACMA may manage interference that may be caused to a radiocommunications receiver operating under a spectrum licence. One of these includes the ability to make advisory guidelines under section 262 of the Act about interference. The 2015 Advisory Guidelines provide guidance to assist with the protection of spectrum licensed radiocommunications receivers operating in the 2 GHz band from radiocommunications transmitters operated under apparatus and class licences.

Operation

The 2015 Advisory Guidelines provide guidance on the management and settlement of interference to radiocommunications receivers operating under a spectrum licence in the 2 GHz band which is caused by radiocommunications transmitters operating under apparatus or class licences in an adjacent band or geographical area. The 2015 Advisory Guidelines should be used by spectrum, class and apparatus licensees in the planning of services or the resolution of interference.

Consultation

Subsection 17(1) of the LIA requires that, before the ACMA makes a legislative instrument, it must be satisfied that any consultation that the ACMA considers is appropriate and reasonably practicable to undertake has been undertaken.

In this case, the ACMA consulted publicly from 15 December 2014 to 6 February 2015 by means of a consultation paper with a draft instrument published on its website. That paper explained the sunseting process and the ACMA's preliminary view that the existing arrangements should be saved from automatic repeal and remade without any significant changes. Interested parties were invited to comment. The ACMA received one submission in response to the consultation paper which it took into account when making the 2015 Advisory Guidelines.

Detailed description of the 2015 Advisory Guidelines

Details of the 2015 Advisory Guidelines are set out in **Attachment A**.

Documents incorporated in the 2015 Advisory Guidelines by Reference

The 2015 Advisory Guidelines incorporate, by reference, the following documents as in force from time to time or otherwise refer to them:

- *Radiocommunications Act 1992*
- *Radiocommunications (Unacceptable Levels of Interference — 2 GHz Band) Determination 2015*

Acts and legislative instruments referenced in the 2015 Advisory Guidelines can be found on the Australian Government's ComLaw website (<http://www.comlaw.gov.au/>).

Statement of Compatibility with Human Rights

As required under the *Human Rights (Parliamentary Scrutiny) Act 2011*, a Statement of Compatibility with Human Rights has been prepared by the ACMA and is at **Attachment B**.

Regulation Impact Statement

Under the Guidance Note *Sunsetting Legislation* published by the Office of Best Practice Regulation (OBPR) in March 2013, streamlined administrative processes apply to sunseting legislative instruments. As the ACMA has determined that the 2000 Advisory Guidelines were fit for purpose, and should be remade without any significant changes, and has certified those matters to OBPR, no Regulation Impact Statement (RIS) is required in relation to the making of the 2015 Advisory Guidelines (OBPR reference number ID 17001).

Attachment A

Details of the *Radiocommunications Advisory Guidelines (Managing Interference from Apparatus-licensed and Class-licensed Transmitters – 2 GHz Band)* 2015

PART 1 – INTRODUCTION

Title

Section 1.1 provides that the guidelines are called the *Radiocommunications Advisory Guidelines (Managing Interference from Apparatus-licensed and Class-licensed Transmitters – 2 GHz Band)* 2015 (the 2015 Advisory Guidelines).

Commencement

Section 1.2 provides that the 2015 Advisory Guidelines commence on the day after they are registered on the Federal Register of Legislative Instruments.

Revocation

Section 1.3 provides that the *Radiocommunications Advisory Guidelines (Managing Interference from Apparatus-licensed and Class-licensed Transmitters – 2 GHz Band)* 2000 are revoked.

Purpose of these guidelines

Section 1.4 identifies that the purpose of the 2015 Advisory Guidelines is to assist in managing interference to registered fixed receivers operating under spectrum licences issued in the 2 GHz band from fixed transmitters operating under apparatus licences or under class licences.

Interpretation

Subsections 1.5(1) and (2) define various terms which are used in the 2015 Advisory Guidelines.

PART 2 – MANAGING INTERFERENCE FROM NON-SPECTRUM LICENSED SERVICES

In-band interference

Subsection 2.1(1) provides that in-band interference to a radiocommunications receiver operating under a spectrum licence from a radiocommunications transmitter operating under an adjacent spectrum licence is managed through the core conditions imposed on spectrum licences, and using the device boundary criteria prescribed in the *Radiocommunications (Unacceptable Levels of Interference—2 GHz Band) Determination* 2015.

Subsection 2.1(2) explains that in-band interference from a radiocommunications transmitter operating under an apparatus licence is managed as if the transmitter is operated under a spectrum licence. The device boundary criteria applicable to spectrum licensed transmitters also apply to apparatus licensed transmitters. As a result, spectrum licences are afforded the same level of in-band protection from apparatus licensed transmitters as they are from transmitters operated under an adjacent area spectrum licence. It is noted that the 2015 Advisory Guidelines do not cover interference caused by transmitters operating under an apparatus licence that was first issued before 4 December 2000.

Subsection 2.1(3) provides that the interference management framework for class licensed transmitters is contained in the class licence. Class licensed transmitters operating in accordance with the conditions of the licence will not generally be considered to cause unacceptable interference to a spectrum licensed receiver operating in the 2 GHz band.

Out-of-band interference

Subsections 2.2(1), (2) and (3) deal with out-of-band interference in a radiocommunications receiver operated under a spectrum licence. Out-of-band interference can occur under a number of circumstances and may be caused by intermodulation products, harmonic signals, parasitic signals or other spurious signals generated internally to the radiocommunications receiver. Out-of-band interference may also extend for significant frequency separations on either side of a spectrum licence and its severity may depend on the quality of the radiocommunications receiver. For these reasons, out-of-band interference is managed through the definition of a notional receiver performance level and a compatibility requirement for coordination with apparatus licensed services (set out in Part 4 of the 2015 Advisory Guidelines). The use of a performance standard for spectrum licensed receivers ensures that the burden of mitigating interference is not solely placed on the transmitter side.

PART 3 – MINIMUM LEVEL OF RECEIVER PERFORMANCE

Recording receiver details in the Register

Section 3.1 provides that in order for a radiocommunications receiver operating under a spectrum licence to be afforded protection from interference under the 2015 Advisory Guidelines, details of the receiver must be recorded in the Register of Radiocommunications Licences established under section 143 of the Act.

Mobile devices

Section 3.2 explains that the compatibility requirement (specified in Part 4) does not apply to mobile or nomadic devices due to their transient nature. The note to this section advises that mobile transmitters are not required to be registered with the ACMA.

Receiver performance level

Section 3.3 explains the basis for definition of the notional receiver performance level. The degree of interference seen in a radiocommunications receiver is dependent on the nature of the emissions from a radiocommunications transmitter as well as the performance of the receiver. Emissions from transmitters should not have to be reduced below a point where the performance of a receiver is the problem. A registered radiocommunications receiver must meet the notional receiver performance level set out in Schedule 1 in order to obtain protection under the 2015 Advisory Guidelines.

The compatibility requirement described in Part 4 of the 2015 Advisory Guidelines is based on a system that performs to this level or better. In order to gain the full benefits, a receiver should meet or exceed the notional receiver performance level and must do so if it is to be afforded protection under the 2015 Advisory Guidelines. Also, when assessing interference, the ACMA will assume receivers perform to the levels specified in the 2015 Advisory Guidelines.

The note to this section provides that the performance levels at Schedule 1 are based on the most current information at the time of making the 2015 Advisory Guidelines, however they are able to be amended in the future in consultation with 2 GHz band licensees.

PART 4 – COMPATIBILITY REQUIREMENT

Apparatus licensed transmitters

Section 4.1 provides that fixed transmitters must meet the compatibility requirement in Schedule 2 in relation to a fixed receiver with a minimum level of performance and that is registered before the issue of the apparatus licence under which the transmitter operates.

Class licensed transmitters

Section 4.2 provides that fixed transmitters operating under a class licence must comply with the conditions of the class licence.

Schedule 1 – Receiver minimum level of performance

This Schedule defines the minimum level of performance for spectrum licensed radiocommunications receivers. Such receivers should meet or exceed this performance level in order to minimise interference from spectrum licensed and apparatus licensed transmitters. The minimum receiver performance level consists of requirements for the following:

- Adjacent channel selectivity performance which is the measure of the ability of a radiocommunications receiver to receive a wanted signal without exceeding a specified degradation in output quality due to the presence of an unwanted adjacent channel signal.
- Receiver intermodulation response rejection performance, which is defined as the measure of the ability of a radiocommunications receiver to receive a wanted signal in the presence of two or more unwanted signals with a specific amplitude and frequency relationship to the wanted signal frequency.
- Receiver blocking performance, which is the measure of the ability of a radiocommunications receiver to receive a wanted signal in the presence of a high level unwanted interferer on frequencies other than those of the adjacent channels.

There are two notes in this Schedule - the first provides testing parameters for receiver performance and the second encourages good engineering practices to be observed when measuring performance.

Schedule 2 – Compatibility requirement

This Schedule defines the compatibility requirement for managing interference from radiocommunications transmitters operating under apparatus and class licences. The compatibility requirement for a fixed receiver operating under an apparatus licence is an unwanted signal level that is never more than -126 dBm for more than 1% of any 1 hour period.

Attachment B

Statement of Compatibility with Human Rights

Prepared in accordance with Part 3 of the *Human Rights (Parliamentary Scrutiny) Act 2011*

Radiocommunications Advisory Guidelines (Managing Interference from Apparatus-licensed and Class-licensed Transmitters – 2 GHz Band) 2015

The 2015 Advisory Guidelines are compatible with the human rights and freedoms recognised or declared in the international instruments listed in section 3 of the *Human Rights (Parliamentary Scrutiny) Act 2011*.

Overview of the Legislative Instrument

The *Radiocommunications Advisory Guidelines (Managing Interference from Apparatus-licensed and Class-licensed Transmitters – 2 GHz Band) 2015* revokes and replaces the *Radiocommunications Advisory Guidelines (Managing Interference from Apparatus-licensed and Class-licensed Transmitters – 2 GHz Band) 2000* without making any significant changes to the regulatory arrangements created by those advisory guidelines.

The *Radiocommunications Advisory Guidelines (Managing Interference from Apparatus-licensed and Class-licensed Transmitters – 2 GHz Band) 2015* provide guidelines to manage interference by providing protection of registered fixed receivers operating under spectrum licences issued in the 2 GHz band.

Human Rights Implications

The *Radiocommunications Advisory Guidelines (Managing Interference from Apparatus-licensed and Class-licensed Transmitters – 2 GHz Band) 2015* do not engage any of the applicable rights or freedoms.

Conclusion

The *Radiocommunications Advisory Guidelines (Managing Interference from Apparatus-licensed and Class-licensed Transmitters – 2 GHz Band) 2015* are compatible with human rights as they do not raise any human rights issues.